CURRICULUM VITAE

Name: Amir Amedi

1. PERSONAL DETAILS

Date of Birth: 3/4/1972

Country of Birth: Israel

Date of Immigration: N/A

ID no.: 029327301

Nationality: Israeli

Marital status: Married

No. of children: 2

Military Service: Nahal (Seren/Captain, Reserve).

Permanent address: 13 Adir Street, Modiin-Makabim-Reut, Israel zip 7179902.

Phone no. (Cell): 054-5451577

E-mail address: amedi@idc.ac.il

Websites: www.BrainVisionRehab.com

2. HIGHER EDUCATION

11/1994-05/1998: The Hebrew University of Jerusalem, B.Sc. in Biology, Graduated with honors *(Magna Cum Lauda)*

11/1999-06/2001: The Hebrew University of Jerusalem, M.Sc. in Computational Neuroscience *(Without thesis, moved on to the direct PhD ICNC program)*

06/2001-06/2005: The Hebrew University of Jerusalem, Ph.D in Computational Neuroscience,

(PhD thesis submission on March 2004 then moved on to my Post doc; PhD officially granted on June 2005 while in post doc). Thesis title: “Visual and multisensory processing and plasticity in the human brain”. Supervisors: Prof. Ehud Zohary; Prof. Rafael Malach. #1, 3, 4

04/2004-07/2007: Post-doc - Harvard Medical School, Center for Non-Invasive Brain Stimulation,

Beth Israel Deaconess Medical Center, Boston, USA. Post-doctoral Fellowship. Host: Prof. Alvaro Pascual-Leone #6-8, Reviews #1-4

3. APPOINTMENTS as a Principal Investigator (PI)

08/2007-06/2012 Senior Lecturer, Department of Medical Neurobiology, Institute for Medical Research Israel-Canada, Hebrew University-Hadassah Medical School. Department of Cognitive Science (co-affiliation), Hebrew University

06/2012-2016 Associate Professor, Department of Medical Neurobiology, Institute for Medical Research Israel-Canada, Hebrew University-Hadassah Medical School. Department of Cognitive Science (co-affiliation), Hebrew University

2016-2019 Professor, Department of Medical Neurobiology, Institute for Medical Research Israel-Canada, Hebrew University-Hadassah Medical School. Department of Cognitive Science (co-affiliation), Hebrew University

2019-Present Professor, The Ivcher Institute for Brain, Mind & Technology, School of Psychology, Interdisciplinary Center Herzliya IDC.

4. ADDITIONAL FUNCTIONS/TASKS AT THE HEBREW UNIVERSITY

(In the last 5 years)

02/2011-10/2014: Cognitive Science program advisor for advanced degrees (Master and PhD)
01/2012-12/2012: HUJI Fund raising excursions in Geneva, Lisbon and Argentina
10/2012-01/2015: Member of ELSC recruitment committee
11/2012-Present: Member of the Cognitive Science program development committee
11/2012-Present: Member of the Cognitive Science program recruitment committee
08/2012-Present: Over 100 lectures and lab visits/demos for various sections of the Hebrew University (Authority for Community & Youth, Division of Marketing & Communication, The Division for Advancement and External Relations, fund-raising campaigns and delegations to IMRIC, ELSC and various other donors); lectures to various scientific and other delegations (ambassadors; high schools, organizations etc.)
10/2013-Present: Member of the Faculty of Medicine Prizes committee
09/2014-Present: Head of the PhD admission Committee, Cognitive Science program
06/2015: Key Contributor and lecturer to the Hebrew University's 90th Anniversary Gala
10/2015-10/2016: Cognitive Science program advisor for advanced degrees

5. SERVICE IN OTHER ACADEMIC AND RESEARCH INSTITUTIONS

04/2005-07/2007: Harvard Medical School, Boston, USA, Instructor of Neurology

10/2014-Present: Sorbonne Universités, UPMC Univ Paris 06, Institut de la Vision, France, Adjunct Research Professor

01/2016-12/2017: Institut de la Vision (IDV), Examiner and Evaluator of research projects

09/2016: DFG (Deutsche Forschungsgemeinschaft), The University of Tubingen Collaborative Research Centre Program, Onsite panel member/reviewer (12 years multi-center grant)

01/2017-12/2017: The Laboratory "Sensor-Tech" for deaf and blind, Russia, Examiner and Evaluator of research projects

08/2017-12/2017: Visiting Professor, The Spinoza Center for Brain Imaging, University of Amsterdam. Collaboration and working with Professor Serge Doumlin, Director of the Spinoza Center

02/2018-10/2018: Visiting Professor, McConnell Brain Imaging Center, Montreal Neurological Institute, McGill University. Collaboration and working with Professor Julien Doyon, Director of the McConnell Imaging Center

6. OTHER ACTIVITY

Memberships in editorial boards:

12/2010-06/2012: European Journal of Neuroscience, Scientific Review Board, “Scientific Review Associate” (SRA)

07/2010-Present: Frontiers in: Neuroscience/ Human Neuroscience/ Perception Science, Review Editor

11/2011-Present: Multisensory Research, Associate Editor

11/2013-Present: Restorative Neurology and Neuroscience (RNN), Associate Editor

04/2014: Neuroscience and Biobehavioral Reviews (NBR), Guest editor on a special issue on the topic of *Multisensory integration, sensory substitution and visual rehabilitation.*

12/2017: Multisensory Research (MSR), Guest editor on a special issue on the topic of 'Synaesthesia and Cross-modal Perception' (In press)

Ad Hoc Reviewer (Scientific Journals):

Journal of Neuroscience, Current Biology, Neuron, Brain, Cerebral Cortex, European Journal of Neuroscience, NeuroImage, Journal of Vision, Neuropsychologia, Human Brain Mapping, Restorative Neuroscience and Neurology, Brain Topography, Brain Research, Journal of neurophysiology, Mutisensory Research, Human Brain Mapping, Nature Communications, Nature Neuroscience, PNAS

Ad Hoc Reviewer (Grants):

2008-Present: Reviewer for Economic and Social Research Council (ESRC), UK

2009-Present: Reviewer for Israel Science Foundation (ISF)

2009-Present: Reviewer for The National Institute for psychobiology in Israel

2009-Present: Reviewer for The Welcome Trust, UK

2011-Present: Reviewer for The Swiss National Science Foundation (SNSF)

2012-Present: Reviewer for the German-Israel foundation (GIF)

2012-Present: Reviewer for The Fund for Scientific Research – FNRS, Belgium

2016: Reviewer for the Deutsche Forschungsgemeinschaft (DFG)

2016-Present: Reviewer for the European Research Council (ERC); external referee for scientific proposals submitted to the ERC Consolidator Grant

Ad Hoc Reviewer (PhD thesis); International:

09/2015: Sorbonne Universités / Institut de la Vision, France

06/2016: University of Amsterdam, The Netherlands

03/2017: Sorbonne Universités / Institut de la Vision, France

07/2017: University of Utrecht, The Netherlands

Ad Hoc Reviewer (PhD thesis); Local (multiple for each university):

2008-Present: Hebrew University of Jerusalem

2008-Present: Weizmann Institute of Science

2010-Present: Technion- Israel Institute of Technology

2012-Present: Bar Ilan University

2015-Present: Tel Aviv University

Organization of Conferences (Organizer / Co-Organizer):

11/2010: 20th meeting of the Journee Jean-Louis Signoret, Paris, France. "What does sensory handicap teach us about multisensory integration in the brain", *Presidents invites/Conference organizer* (together with Prof. Anne-Lise Giraud and Prof. Laurent Cohen)

06/2013: 14th Annual Meeting of the International Multisensory Research Forum; Jerusalem, Israel *Conference organizer (co-chair Prof. David Shore)*

06/2013: Sensory Substitution, Brain Plasticity and Visual Rehabilitation workshop; Jerusalem, Israel. *Conference organizer*

Organization of Conferences (Advisory board member/ Program committee):

06/2011: 12th Annual Meeting of the International Multisensory Research Forum; Sendai, Japan, *Advisory board member*

06/2012: 13th Annual Meeting of the International Multisensory Research Forum; Oxford, UK, *Advisory board member*

06/2014: 15th Annual Meeting of the International Multisensory Research Forum; Amsterdam, Netherlands, *Advisory board member*

06/2015: 16th Annual Meeting of the International Multisensory Research Forum; Piza, Italy. *Advisory board member*

03/2015: 6th Augmented Human International Conference; Singapore, Singapore. *Member of the Program committee; Referee in the poster/demos competition.*

06/2016: 17th Annual Meeting of the International Multisensory Research Forum; Yokahama, Japan, *Advisory board member*

05/2017: 18th Annual Meeting of the International Multisensory Research Forum; Tennessee, USA. *Advisory board member*

11/2017: 4th International Symposium "Low Vision and the Brain", Berlin, Germany. *Advisory board member*

Awards, Prizes and Honors:

05/1998: B.Sc. Graduated 'Magna cum Laude' from the Hebrew University of Jerusalem

10/1999-10/2004: Inter-disciplinary center for neuronal computation (ICNC) fellow

10/2001-10/2004: The Horowitz foundation scholarship for outstanding Ph.D. students

06/2004: Travel Fellowship Award to attend the Human Brain Mapping Meeting

07/2005-07/2007: International Human Frontiers Science Program Long-Term Postdoctoral Fellow

07/2005: Summer Institute in Cognitive Neuroscience fellowship, Dartmouth College, USA

01/2007: Presidential absorptions grant, The President of the Hebrew University

05/2007: Invited plenary keynote speaker in the Georgetown Cognitive Sciences Spring Symposium

03/2008: Golda Meijer foundation tenure track lecturer fellow

06/2008: Alon fellow, Council for Higher Education, Israel

02/2009: International Human Frontiers Science Program Career Development Award

05/2010: The Sieratzki-Korczyn Prize for advances in Neuroscience

10/2010: The Avraham Shalmon 'Teva' company founders award for "imaging of diseases"

02/2011: The Krill Prize for Excellence in Scientific Research, The Wolf Foundation

04/2011: Selected to give the inauguration speech on behalf of Krill Prize awardees, The Wolf foundation

07/2011: Dean of The Hebrew University Faculty of Medicine Young Investigator Award in the memory of Prof. Yaacov Matzner

07/2011: James S. McDonnell Foundation 2011 Scholar Award in Understanding Human Cognition

11/2012: 2012 Neuron paper work #28 was highlighted in Nature News and Views and on Nature's group monthly podcast NEUROPOD

06/2013: Invited faculty in an Interdisciplinary Summer School on "Embodied Inter-subjectivity: the 1st person and the 2nd person perspectives", Aegina, Greece

2012-2013: Rector's list for excellence in teaching for the 2012-2013 academic year

2014: Current Biology paper work #35 was highlighted in Science, Society for Neuroscience (SfN) homepage, New York Times, National Geographic and Wired magazine.

2014-2015: Rector's list for excellence in teaching for the 2014-2015 academic year

06/2016: Invited keynote speaker; The Brain in visual and auditory impairment symposium. College De France, Paris

2015-2016: Rector's list for excellence in teaching for the 2015-2016 academic year

03/2017: Selected as the International Brain awareness week lecturer (7 invited keynote lectures including events in McMaster Uni. and U. Toronto, Canada)

03/2017: Symposium keynote speaker and chair at the Rank Prize Funds Symposia "*Learning to See: From Retinal to Brain Computations*", UK

05/2017: Lab technologies were selected for the prestigious MassChallange accelerator (MassChallange Israel finalists)

07/2017: The Faculty of Medicine Prize for excellence in teaching

09/2017: Lab technologies awarded first prize at the prestigious MassChallange Israel accelerator for innovating start-ups

2017: The Konorski Award awarded annually for best publication in neurobiology

10/2017: Lab technologies awarded the "Incubate Awards" at the WeWork TLV Creators Award event

11/2017: Symposia Co-Chair at Neuroscience 2017, the Society for Neuroscience (SfN's) 47th annual meeting, Washington, USA. Symposium: Cortical Plasticity Following Sensory Loss and Restoration

02/2018: Elected Member for the Genius 100 visions project (genius100Visions)

4/2019: Lab technologies Artifivial intelligence AICane for the blind awarded the prestigious grandmother award from StartUp Festival, Monteal.

Membership in a Professional Association:

2011: Member of The Consortium of Neuroimagers for the Non-invasive Exploration of brain Connectivity and Tracts (CONNECT)

2001-2007; 2013-Present: Member of the Society For Neuroscience (SFN)

2001-Present: Member of The Israeli Society For Neuroscience (ISFN)

2004-Present: Member of The International Multisensory Research Forum (IMRF)

2004-2012: Member of The International Human Frontiers Science Program Organization

2008, 2013, 2015-Present: Member of The Israeli Society for Vision and Eye Research (ISVER)

2010, 2015-Present: Member of The Federation of European Neuroscience Societies (FENS)

2010-2013, 2015-Present: Member of The International Human Brain Mapping Organization (OHBM)

2011: Member of The European Society for Cognitive Psychology

2011: Member of The International Association of Functional Neurology & Rehabilitation (IAFNR)

2015: Member of The International Brain Research Organization (IBRO)

2017-Present: Member of The Royal Society of Medicine (RSM), UK

7. RESEARCH GRANTS

Competitive major grants as principle investigator [All grants as PI and without collaborators beside the MOPPET grant)]

2007-2011: Marie Curie International Reintegration Grant, European Commission - The 7th Framework Programme. (IRG-EU-FP7), Hebrew University of Jerusalem "SEEING WITH SOUNDS" - *$140,000/$140,000/ (~$35,000/year)*

2008-2009 The National Institute for Psychobiology in Israel - *$25,000/$25,000*

2008-2011 Alon Award - $10,000/$10,000

2008-2012 Prize award for research in the lab from TEVA company - 17,000$/17,000$

2008-2012 Israeli Science foundation grant (ISF), "Neural basis and behavioral correlates of sensory substitution, brain plasticity and brain development in humans" - *~$240,000/$240,000 (~$60,000/year)*

2009-2010 German Israeli foundation (GIF) Young Scientists' Program award - *~$45,000/$45,000 (37,000 Euro)*

2009-2012: International Human Frontiers Science Program career development grant (HFSPO), "Artificial vision using sensory substitution in blind children: behavior and brain dynamics "- *$300,000/$300,000 ($100,000/year)*

2012-2018: The James S. McDonnell Foundation Scholar Award in Understanding Human Cognition (JSMF), The Hebrew University of Jerusalem "Understanding Human Cognition" - $600,000

02/2013: ERC Starter grant awarded: *"Seeing" with the ears, hands and bionic eyes: from theories of brain organization to visual rehabilitation" / BrainVisionRehab - 1.500.000Euro/1.500.000Euro*

12/2015: Singapore National Research Foundation (NRF) Science of Learning Initiative Planning Grants: *MOPPET: A Multisensory Ear Training Program for Children with Cochlear Implants.* Joint grant with Wang Ye (National University of Singapore, Singapore), Frank A. Russo (Ryerson University, Canada) - ~23,000/70,000$

2018-2022: ERC Consolidator grant awarded: *"How experience shapes brain specializations"* / NovelExperiSENSE – 2,000,000 Euro/2,000,000 Euro

2018-2021: Joy Ventures grant for Innovating Neuro Wellness *"Bridging the gap between body, mind and emotion- elucidating the representations of brain maps in the brain's self-referential networks"* 100,000$/100,000$

Individual donor grants, special grants and intramural research grants: *[All grants as PI and without collaborators beside vision center donation and The Martier family foundation Grant]*

01/2007-12/2010: Presidential research absorption grant - 600,000$

10/2007-10/2008: The Hebrew University Intramural Research found Career development award - 24,000$

10/2007-10/2008 Lichenski foundation - 6,000$

08/2008-06/2011: Moscona foundation award *85,000$*

07/2008-04/2010 Eliyahu Pen foundation award *6,000$*

10/2010-10/2011 Shohare USA - 20,000$

11/2010-Present: Falamme Foundation Vision Center Grant 250,000$/1,000,000$

01/2014: The Martier family foundation Grant/Donation. Joint grant with Prof. Sahel (IDV) and Prof Banin (Dpt of Ophtalmology) - ($400,000/$1,000,000)

8. TEACHING – STUDENTS AUPERVISION *[4 Post docs, 5 Ph.D. & 5 M.Sc active students]*

A. Supervision of master and doctoral degree students

- **Master's degree students**

10/2007-10/2009: Noa Tal; completed *magna cum laude.* #16, 17.

10/2009-01/2013: Ornella Dakwar.

03/2011-09/2013: Sami Abboud. #23, 27, 30, 31, 41, 45, 48, review #6.

10/2013 – 2018: Menahem Kerem

02/2014 – 5/2017: Shani Shapira

10/2014 - Present: Yoni Halperin

10/2015 - 2018: Tomer Behor

- **Doctoral degree students**

10/2007-02/2014: Ella Striem-Amit; *Hoffman program fellow;* #15, 21, 22, 24, 25, 28, 35, 36, review #10.

10/2007-12/2012: Ran Geva*;* Co-supervisor- Prof. Rafael Malach (WIS); #44, 52.

10/2008-09/2013: Uri Hertz; *ICNC program fellow;* #19, 21, 22, 26, 34, 37, 48 (Now PI in U. of Haifa)

10/2008-08/2014: Haim Azulay; #15

04/2008-11/2015: Zohar Tal; #43, 44, 52

10/2008-01/2015: Noa Zeharia; *ICNC program fellow;* Co-supervisor- Prof. Tamar Flash; #26, 37

10/2009-2016: Lior Reich; *Direct PhD in Neurobiology and MD/PhD student, Rodin foundation fellow;* #20, 25, 39, review #5

03/2012-2016: Shachar Maidenbaum; #23, 27, 29, 30, 31, 32, 38, 40, 41, 42, 45, 47, 51, review #5, 6, 12, Peer-Reviewed Full-Length Conference papers #1, 2, 3, 4.

10/2012-2016: Roni Arbel, MD-Ph.D. student

10/2015 – Present: Or Yizhar

02/2016 – Present: Galit Buchs; #31, 38, 45, 51, Peer-Reviewed Full-Length Conference papers #1.

B. Post-doctoral Fellows

2011-2013: Dr. Ilan Goldberg (MD, PhD), ELSC post-doctoral fellow; Co-Supervisor Dr. Shahar Arzy

2010-2014: Dr. Shelly Levy-Tzedek, ELSC post-doctoral fellow; #23, 27, 29, 30, 31, 32, 33, 38, 47 Peer-Reviewed Full-Length Conference papers #3, 4 (Now PI in Ben Gurion University)

07/2010-09/2014: Dr. Daniel-Robert Chebat – Azrieli Foundation post-doctoral fellow; #29, 31, 32, 40, Peer-Reviewed Full-Length Conference papers #3, 4.

2009-2010: Dr. Andrea Bubic. Visiting post-doc fellow.

2013-2014; 2016 Dr. Petra Vetter. Visiting post-doc fellow. (Now PI in the Royal Holloway, U. of

London)

2013-2014 Dr. Weronika Dębowska. Visiting post-doc fellow.

12/2014-2016: Dr. Flor Kusnir - ELSC post-doctoral fellow

06/2014-Present: Dr. Benedetta Heimler - ELSC post-doctoral fellow; review #10, 12.

02/2015-Present: Dr. Shir Hofstetter – JBC post-doctoral fellow; review #12. #59

2018-Present: Dr. Kasia Ciesla #58

11/2019-Present: Dr. Elena Aggius Vella Post-doctoral fellow

03/2020-Present: Dr. Dr. Isabel Arend Diskin Post-doctoral fellow.

C. Courses Taught by Candidate

2009-Present: Course 06125: Functional Neuroanatomy for Cognitive Sciences program (B.Sc. and M.Sc. students)

2009-Present: Course 91147: Physiology for Nursing (B.Sc.)

2014-Present: Course 76900: Physiology of the Nervous System A (M.Sc. and Ph.D. students)

2017-Present: Course 75205: Cellular Physiology for Medical Students

LIST OF PUBLICATIONS

PI= principal investigator, C=co-researcher, S= student, PD= postdoc T=lab tech.

In bold= submitted chosen reprints best representing my research.

1. Doctoral Dissertation: "Visual and multisensory processing and plasticity in the human brain", Prof. Ehud Zohary, Hebrew University, Prof. Rafael Malach, Weizmann Institute of Science. July 2005. Publications emanated from the dissertation: #1-4 in general list.

2. Books:

None

3. Books Edited:

None

4. Chapters in Collections:

Merabet, L.[PD], **Amedi, A.[PD],** Pascual-Leone, A.[PI] (2006). Activation of the Primary Visual Cortex by Braille reading in Blind Subjects. In: Reprogramming the Cerebral Cortex, plasticity following central and peripheral lesions, (pp. 377-394). (Eds. S. Lomber and D. Eggermont). Oxford University Press, New York, USA.

Merabet, L.[PD], Bass-Pitskel, N[S], **Amedi, A[C]**, Pascual-Leone, A.[PI] (2008). The plastic human brain in blind individuals: The cause of disability and the opportunity for rehabilitation. In: Blindness and brain plasticity in navigation and object perception, (pp.23-42). (Eds. J. J. Rieser, D. H. Ashmead, F. F. Ebner, and A. L. Corn). Lawrence Erlbaum Associates, New York, USA.

Bubic, A[PD], Striem-Amit, E.[S], **Amedi, A.[PI]** (2010)**.** Large-scale brain plasticity following blindness and the use of sensory substitution devices. In: Multisensory object perception in the primate brain, (pp. 351-380). (Eds. J. Kaiser and M.J. Naumer). Springer Press, New York, USA.

Amedi, A.[PI], Merabet, L.[C], Tal, N.[S], Pascual-Leone, A.[PI] (2011). Pictorial art beyond sight: revealing the mind of a blind painter. In: Art and the Senses, (pp. 465-480). (Eds. F. Bacci, D. Melcher). Oxford University Press, New York, USA.

Amedi, A.[PI] (2011)**.** The occipital lobe and language. In: The Cambridge Encyclopedia of the language sciences, (pp. 563-566). (Ed. P. Hogan). Cambridge University Press, Cambridge, UK.

Striem-Amit, E.[S], Bubic, A.[PD], **Amedi, A.[PI]** (2012)**.** Neurophysiological mechanisms underlying plastic changes and rehabilitation following sensory loss in blindness and deafness. In: The Neural Bases of Multisensory Processes, (Chapter 21, PMID: 22593863). (Eds. M.M. Murray & M.T. Wallace). Taylor and Francis, Oxford, UK.

Maidenbaum, S.[S], **Amedi, A.[PI]** (2012)**.** Applying plasticity for visual rehabilitation in adulthood. In: Plasticity in Sensory Systems, (pp. 229-254). (Eds. L. Harris & J. Steeves). Cambridge University Press, New York, USA

Striem-Amit, E.[S], Dakwar, O.[S], Hertz, U.[S], Meijer, P.[C], Stern, W.[C], Pascual-Leone, A.[C], **Amedi, A[PI]** (2015). The Plasticity of Neural Network Sensory-Substitution Object Shape Recognition. In: Neuroplasticity in Learning and Rehabilitation, (pp. 229-236). Nova Science Publishers, New York, USA

Hillenbrand, S.[S], Raveh, D.[C], **Amedi, A.[PI]** (2018). What can sensory substitution tell us about the organization of the brain? In: Sensory substitution and Augmentation, (Ed. F. Macpherson). British Academy, Oxford University Press

Heimler, B.[PD], Pavani, F.[C], **Amedi, A.[PI]** (2018). Implications of Cross-Modal and Intramodal Plasticity for the Education and Rehabilitation of Deaf Children and Adults. In: Evidence-Based Practices in Deaf Education, (pp. 323-). Harry Knoors and Marc Marschark

5. Articles:

Citations marked '{#GoogleScholar, #WebOfScience}'. Total Citations-{9484,4746}, H-index-{40,33}

Original Papers in Peer Reviewed Journals

1. **Amedi, A.[S]**, Malach, R.[C], Hendler, T.[C], Peled, S.[C], Zohary, E.[PI] (2001). ***Visuo-haptic object-related activation in the ventral visual pathway.*** Nature Neuroscience. 4:324-330. 17.839;2/258. (Neurosciences) {562, 385}
2. **Amedi, A.[S]**, Jacobson, G.[S], Hendler, T.[C], Malach, R.[C], Zohary, E.[PI] (2002). ***Convergence of visual and tactile shape processing in the human lateral occipital complex***. Cerebral Cortex. 12:1202-1212. 6.559;20/258. (Neurosciences) {379, 247}
3. **Amedi, A.[S]**, Raz, N.[S], Pianka, P.[C], Malach, R.[C], Zohary, E.[PI] (2003). ***Early 'visual' cortex activation correlates with superior verbal-memory performance in the blind.*** Nature Neuroscience. 6:758-66. 17.839;2/258. (Neurosciences) {458, 299}
4. **Amedi, A.[S]**, Floel, A.[PD], Knecht, S.[C], Zohary, E.[C], Cohen, LG.[PI] (2004). ***Transcranial magnetic stimulation of the occipital pole interferes with verbal processing in blind subjects***. Nature Neuroscience. 7:1266-70. 17.839;2/258. (Neurosciences) {209, 139}
5. Raz, N.[S], **Amedi, A.[S]**, Zohary, E.[PI] (2005). ***V1 activation in congenitally blind is associated with episodic retrieval.*** Cerebral Cortex. 15:1459-1468. 6.559;20/258. (Neurosciences) {110, 82}
6. **Amedi, A.[PD]**, Malach, R.[C], Pascual-Leone, A.[PI] (2005). ***Negative BOLD differentiates visual imagery and perception.*** Neuron. 48:859-72. 14.024;6/258. (Neurosciences) {172, 108}
7. Bermpohl, F.[PI], Pascual-Leone, A.[C], **Amedi, A.[PD]**, Merabet, L.[PD], Fregni, F.[PD], Gaab, N.[S], Alsop, D.[C], Schlaug, G.[C], Northoff, G.[PI] (2006). ***Dissociable Networks for the Expectancy and Perception of Emotional Stimuli in the Human Brain.*** Neuroimage. 30:588-600. 5.835;1/14. (Neuroimaging) {114, 73}
8. Bermpohl, F.[PI], Pascual-Leone, A.[C], **Amedi, A.[PD]**, Merabet, L.[PD], Fregni, F.[PD], Gaab, N.[S], Alsop,

D.[C], Schlaug, G.[C], Northoff, G.[PI] (2006). ***Attentional modulation of emotional stimulus processing: A fMRI study using emotional expectancy.*** Human Brain Mapping. 27:662-677. 4.53;2/14. (Neuroimaging) {77, 51}

9. Merabet, LB.[S], Swisher, JD.[S], McMains, SA.[S], Halko, MA.[S], **Amedi, A.[C]**, Pascual-Leone, A.[C], Somers, DC.[PI] (2007). ***Combined activation and deactivation of visual cortex during tactile sensory processing.*** Journal of Neurophysiology. 97:1633-1641. 2.396;163/258 (Neurosciences) {105, 62}
10. Ramos-Estebanez, C.[PD], Merabet, LB.[S], Machii, K.[S], Fregni, F.[S], Thut, G.[S], Wagner, TA.[S], Romei, V.[S], **Amedi, A. [C]**, Pascual-Leone, A.[PI] (2007). ***Visual phosphene perception modulated by sub-threshold cross-modal sensory stimulation.*** Journal of Neuroscience. 27:4178-4181. 5.988;29/258. (Neurosciences) {67, 50}
11. **Amedi, A.[PI]**, Stern, W.[PD], Camprodon, JA.[PD], Bermpohl, F.[PD], Merabet, L.[PD], Rotman, S.[S], Hemond, CC.[S], Meijer, P.[C], Pascual-Leone, A.[PI] (2007). ***Shape conveyed by visual-to-auditory sensory substitution activates the lateral occipital complex.*** Nature Neuroscience. 10:687-689. 17.839;2/258. (Neurosciences) {295, 183}
12. Bermpohl, F.[PI], Pascual-Leone, A.[C], **Amedi, A.[PD]**, Merabet, L.[PD], Fregni, F.[PD], Wrase, J.[C], Schlagenhauf, F.[C], Bauer, M.[S], Heinz, A.[S], Schlaug, G.[S], Northoff, G.[PI] (2008). ***Novelty seeking modulates medial prefrontal activity during the anticipation of emotional stimuli.*** Psychiatry Research: Neuroimaging. 164:81-85. 1.878;129/194. (Clinical Neurology) {20, 15}
13. Romei, V[S], Brodbeck, V[C], Michel, C[C], **Amedi, A. [C]**, Pascual-Leone, A[C] and Thut, G[PI] (2008). ***Spontaneous fluctuations in posterior alpha-band EEG activity reflect variability in excitability of human visual areas.*** Cerebral Cortex. 18:2010-2018. 6.559;20/258. (Neurosciences) {417, 265}
14. **Amedi, A.[PI]**, Merabet, L.B.[PD], Camprodon, J.[PD], Bermpohl, F.[PD], Fox, S.[S], Ronen, I.[C], Kim, DS.[C], Pascual-Leone, A.[PI] (2008). ***Neural and behavioral correlates of drawing in an early blind painter: a case study.*** Brain Research. 1242:252-262. 2.746;133/258. (Neurosciences) {29, 6}
15. Azulay, H.[S], Striem, E.[S], **Amedi, A.[PI]** (2009). ***Negative BOLD in Sensory Cortices During Verbal Memory: A Component in Generating Internal Representations?*** Brain Topography. 21:221-231. 3.394;93/258. (Neurosciences) {27, 19}
16. Lacey, S.[PD], Tal, N.[S], **Amedi, A.[C]**, Sathian, K.[PI] (2009). ***A Putative Model of Multisensory Object Representation.*** Brain Topography. 21:269-274. 3.394;93/258. (Neurosciences) {142, 78}
17. Tal, N.[S], **Amedi, A.[PI]** (2009). ***Multisensory visual-tactile object related network in humans: insights gained using a novel crossmodal adaptation approach.*** Experimental Brain Research. 198:165-182. 1.917;193/258. (Neurosciences) {86, 66}
18. **Amedi, A.[PI]**, Raz, N.[S], Azulai, H.[S], Malach, R.[C], Zohary, E.[PI] (2010). ***Cortical activity during tactile exploration of objects in blind and sighted humans.*** Restorative Neurology and Neuroscience 28:143-156. 2.526;149/258. (Neurosciences) {96, 59}
19. Hertz, U.[S], **Amedi, A.[PI]** (2010). ***Disentangling unisensory and multisensory components in audiovisual integration using a novel multi-frequency fMRI spectral analysis.*** NeuroImage. 52: 617-632. 5.835;1/14. (Neuroimaging) {29, 27}
20. Reich, L[S], Szwed, M [S], Cohen, L[C], **Amedi, A.[PI]** (2011). ***A Ventral Visual Stream Reading Center Independent of Visual Experience.*** Current Biology. 21:1–6. 8.851;19/286. (Biochemistry & Molecular Biology) {193, 102}
21. Striem, E.[S], Hertz, U.[S], **Amedi, A.[PI]** (2011). ***Extensive cochleotopic mapping of human auditory cortical fields obtained with phase-encoding fMRI***. PLoS ONE. 6(3):e17832. 2.806;15/64.

(Multidisciplinary Sciences) {69, 51}

22. Striem, E.[S], Dakwar, O. [S], Hertz, U.[S], Meijer, P.[C], Stern, W.[C]., Pascual-Leone, A.[C], **Amedi, A.[PI]** (2011). ***The Neural Network of Sensory-Substitution Object Shape Recognition.*** Functional Neurology, Rehabilitation, and Ergonomic. 1:271-278. (not ranked) {4,}
23. Levy-Tzedek, S.[PD]., Hanassy, S.[S], Abboud, S.[S], Maidenbaum, S.[S], **Amedi, A.[PI]** (2012). ***Fast, Accurate Reaching Movements with a Visual-to-Auditory Sensory Substitution Device.*** Restorative Neurology and Neuroscience. 30:313-323. 2.526;149/258. (Neurosciences) {56, 31}
24. Striem, E.[S], Guendelman ,M.[S], **Amedi, A.[PI]** (2012). ***'Visual' acuity of the congenitally blind using visual-to-auditory sensory substitution.*** PLoS ONE. 7(3):e33136. 2.806;15/64. (Multidisciplinary Sciences) {72, 42}
25. Striem-Amit, E.[S], Dakwar, O.[S], Reich, L.[S], **Amedi, A.[PI]** (2012). ***The large-scale organization of 'visual' streams emerges without visual experience***. Cerebral Cortex. 22:1698-1709. 6.559;20/258. (Neurosciences) {76, 51}
26. Zeharia, N.[S], Hertz, U.[S], Flash, T.[C], **Amedi, A.[PI]** (2012). ***Negative blood oxygenation level dependent homunculus and somatotopic information in primary motor cortex and supplementary motor area.*** Proceedings of the National Academy of Sciences of the United States (PNAS). 109:18565–18570. 9.661;4/64. (Multidisciplinary Sciences) {27, 24}
27. Levy-Tzedek, S.[PD], Novick, T.[C], Arbel, R.[S], Abboud, S.[S], Maidenbaum, S.[S], Vaadia, E. [C], **Amedi, A.[PI]** (2012). ***Cross-sensory transfer of sensory-motor information: visuomotor learning affects performance on an audiomotor task, using sensory-substitution***. Scientific Reports. 2:(949)1-5 (DOI: 10.1038/srep00949). 4.259;10/64. (Multidisciplinary Sciences) {37, 18}
28. Striem-Amit, E.[S], Cohen, L.[C], Dehaene, S.[C], **Amedi, A.[PI]** (2012). ***Reading with Sounds: Sensory Substitution Selectively Activates the Visual Word Form Area in the Blind***. Neuron. 70:640-652. 14.024;6/258. (Neurosciences) {136, 89}
29. Maidenbaum, S.[S], Levy-Tzedek, S.[PD], Chebat, DR.[PD], **Amedi, A.[PI]** (2013). ***Increasing Accessibility to the Blind of Virtual Environments, Using a Virtual Mobility Aid Based On the "EyeCane": Feasibility Study.*** PLoS ONE. 8:e72555. 2.806;15/64. (Multidisciplinary Sciences) {34, 21}
30. Abboud, S.[S], Hanassy, S.[S], Levy-Tzedek, S.[PD], Maidenbaum, S.[S], **Amedi, A.[PI]** (2014). ***EyeMusic: Introducing a "visual" colorful experience for the blind using auditory sensory substitution.*** Restorative Neurology and Neuroscience. 32:247-257. 2.526;149/258. (Neurosciences) {69, 34}
31. Maidenbaum, S.[S], Hanassy, S.[S], Abboud, S.[S], Buchs, G.[S], Chebat, DR.[PD], Levy-Tzedek, S.[PD], **Amedi, A.[PI]** (2014). ***The "EyeCane", a new electronic travel aid for the blind: Technology, behavior & swift learning.*** Restorative Neurology and Neuroscience. 6:813-824. 2.526;149/258. (Neurosciences) {34 ,20}
32. Maidenbaum, S.[S], Chebat, DR.[PD], Levy-Tzedek, S.[PD], Namer-Furstenberg R [C], **Amedi, A.[PI]** (2014). ***The Effect of Expanded Sensory Range via the EyeCane Sensory Substitution Device on the Characteristics of Visionless Virtual Navigation.*** Multisensory Research. 27:379–397. 1.962;44/84. (Psychology, Experimental) {16, 10}
33. Levy-Tzedek, S.[PD], Riemer, D.[S], **Amedi, A.[PI]** (2014). ***Color improves 'visual' acuity via sound***. Frontiers in Neuroscience. 8:(358)1-7 (DOI: http://doi.org/10.3389/fnins.2014.00358). 3.566;83/258. (Neurosciences) {14 ,6}
34. Hertz, U.[S], **Amedi, A.[PI]** (2014). ***Flexibility and stability in sensory processing revealed using visual-to-auditory sensory substitution.*** Cerebral Cortex. 25:2049–2064. 6.559;20/258.

(Neurosciences) {10 ,3}

35. Striem-Amit,E. [S], **Amedi, A.[PI]** (2014). ***Visual Cortex Extrastriate Body-Selective Area Activation in Congenitally Blind People ''Seeing'' by Using Sounds.*** Current Biology. 24:687–692. 8.851;19/286. (Biochemistry & Molecular Biology) {64, 52}
36. Striem-Amit, E. [S], Ovadia-Caro S [C], Caramazza A [C], Margulies D [C], Villringer A [C], **Amedi, A.[PI]** (2015)**. *Functional connectivity of visual cortex in the blind follows retinotopic organization principles***. Brain. 138:1679–1695. 10.292;13/258. (Neurosciences) {46, 36}
37. Zeharia, N. [S], Hertz, U. [S], Flash, T. [C], **Amedi, A.[PI]** (2015). ***New Whole-body Sensory-Motor Gradients Revealed Using Phase-Locked Analysis and Verified using MVPA and Functional Connectivity***. Journal of Neuroscience. 35:2845–2859. 5.988;29/258. (Neurosciences) {10, 7}
38. Buchs, G. [S], Maidenbaum, S. [S], Levy-Tzedek, S.[PD], **Amedi, A.[PI]** (2015). ***Integration and binding in rehabilitative sensory substitution: increasing resolution using a new Zooming- In approach***. Restorative Neurology and Neuroscience. 34:97-105. 2.526;149/258. (Neurosciences) {2, 1}
39. Reich, L.[S], **Amedi, A.[PI]** (2015). ***'Visual' parsing can be taught quickly without visual experience during critical periods.*** Scientific Reports. 5:(15359)1-12 (DOI: 10.1038/srep15359). 4.259;10/64. (Multidisciplinary Sciences) {3, 0}
40. Chebat, DR.[PD], Maidenbaum, S.[S], **Amedi, A.[PI]** (2015). ***Navigation using sensory substitution in real and virtual mazes.*** PLoS ONE. 10:e0126307. 2.806;15/64. (Multidisciplinary Sciences) {19, 13}
41. Abboud, S.[S], Maidenbaum, S.[S], Dehaene S [C], **Amedi, A.[PI]** (2015). ***A number-form area in the blind***. Nature Communications. 6:(6026)1-9 (DOI: 10.1038/ncomms7026). 12.124;3/64. (Multidisciplinary Sciences) {41, 27}
42. Sigalov, N.[S], Maidenbaum, S.[S], **Amedi, A.[PI]** (2015). ***Reading in the Dark: Neural Correlates and Cross-modal Plasticity for Learning to Read Entire Words without Visual Experience***. Neuropsychologia. 83:149–160. 3.197;110/258. (Neurosciences) {0,0}
43. Saadon-Grosman, N.[S], Tal, Z.[S], Itshayek, E.[S], **Amedi, A.[C]**, Arzy, S.[PI] (2015). ***Discontinuity of cortical gradients reflects sensory impairment.*** Proceedings of the National Academy of Sciences of the United States (PNAS). 112:16024–16029. 9.661;4/64. (Multidisciplinary Sciences) {7, 3}
44. Tal, Z.[S], Geva, R.[S], **Amedi, A.[PI]** (2015). ***The origins of metamodality in visual tools area LO: Bodily topographical biases and increased functional connectivity to S1.*** NeuroImage. 127:363–375. 5.835;1/14. (Neuroimaging) {4, 4}
45. Maidenbaum, S.[S], Buchs, G.[S], Abboud, S.[S], Lavi-Rotbain O[S], **Amedi, A.**[PI] (2016). ***Perception of Graphical Virtual Environments by Blind Users via Sensory Substitution.*** PLoS ONE. 11:e0147501. 2.806;15/64. (Multidisciplinary Sciences) {8, 5}
46. Siuda-Krzywicka, K.[S], Bola, L.[S], Paplińska, M.[S], Sumera, E.[S], Jednoróg, K.[S], Marchewka, A.[S], Śliwińska, M.[S], **Amedi, A.[C]**, Szwed, M.[PI] (2016). ***Massive cortical reorganization in sighted Braille readers.*** eLife. 5:e10762. 7.725;4/84. (Biology) {15,12}
47. Levy-Tzedek, S.[PD], Maidenbaum, S.[S], **Amedi, A.[C]**, Lackner, J.[PI] (2016)**. *Aging and sensory substitution in a virtual navigation task.*** PLoS ONE. 11(3):e0151593. 2.806;15/64. (Multidisciplinary Sciences) {6, 6}
48. Peer, M.[S], Abboud, S.[S], Hertz, U.[S], **Amedi, A.[C]**, Arzy, S.[PI], (2016). ***Intensity-based masking: A tool to improve functional connectivity results of resting-state fMRI.*** Human Brain Mapping. 37(7):2407-18. 4.53;2/14. (Neuroimaging) {4, 2}

49. Sabbah, N.[S], Authié, CN.[S], Sanda, N.[S], Mohand-Saïd, S.[C], Sahel, JA.[C], Safran, AB.[C], Habas, C.[C], **Amedi, A.[PI]** (2016). ***Increased functional connectivity between language and visually deprived areas in late and partial blindness.*** NeuroImage. 136:162-173. 5.835;1/14. (Neuroimaging) {5, 5}
50. Sabbah, N.[S], Sanda, N.[S], Authié, CN.[S], Mohand-Saïd, S.[C], Sahel, JA.[C], Habas, C.[C], **Amedi, A.[C]**, Safran, AB.[PI] (2017). ***Reorganization of early visual cortex functional connectivity following selective peripheral and central visual loss.*** Scientific Reports. 7:(43223)1-19 (DOI: 10.1038/srep43223). 4.259;10/64. (Multidisciplinary Sciences)
51. Buchs, G.[S], Simon, N.[S], Maidenbaum, S.[S], **Amedi, A.[PI]** (2017). ***Waist-up protection for blind individuals using the EyeCane as a primary and secondary mobility aid.*** Restorative Neurology and Neuroscience. 35(2):225-235. 2.526;149/258. (Neurosciences)
52. Tal, Z.[S], Geva, R.[S], **Amedi, A.[PI]** (2017) ***Positive and negative somatotopic BOLD responses in contralateral vs. ipsilateral Penfield homunculus.*** Cerebral Cortex. 27(2):962-980. 6.559;20/258. (Neurosciences) {2, 2}
53. Hofstetter, S.[PD], Zuiderbaan, W., Dumoulin, S., **Amedi, A.[PI]** (2018) ***The mapping and reconstruction of the brain's mind eye in the absence of visual experience: a population receptive field mapping of soundscape space***. Journal of Vision. 18 (10), 1228-1228
54. Maidenbaum, S., Chebat, DR., **Amedi, A.[PI]** (2018). ***Human Navigation Without and With Vision-the Role of Visual Experience and Visual Regions.*** bioRxiv, 480558
55. Chebat, DR., Heimler, B.[PD], Hofsetter, S.[PD], **Amedi, A.[PI]** (2018). ***The Implications of Brain Plasticity and Task Selectivity for Visual Rehabilitation of Blind and Visually Impaired Individuals.*** The Neuroimaging of Brain Diseases, 295-321
56. Chebat, DR., Harrar, V., Kupers, R., Maidenbaum, S.,**Amedi, A.,** Ptito, M. (2018) ***Sensory substitution and the neural correlates of navigation in blindness.*** Mobility of Visually Impaired People, 167-200
57. Buchs, G.[S], Heimler, B.[PD], **Amedi, A.[PI]** (2018) ***The Effect of Irrelevant Environmental Noise on the Performance of Visual-to-Auditory Sensory Substitution Devices Used by Blind Adults.*** Multisensory Research (accepted for publication)
58. Cieśla K [PD], Wolak T[C], Lorens A[C], Heimler B[PD], Skarżyński H[C], Amedi A[PI]. ***Immediate improvement of speech-in-noise perception through multisensory stimulation via an auditory to tactile sensory substitution.*** Restor Neurol Neurosci. 2019; 37:155-166.
59. Zeharia N [S], Hofstetter S [PD], Flash T [C], Amedi A[PI]. A ***Whole-Body Sensory-Motor Gradient is Revealed in the Medial Wall of the Parietal Lobe.*** J Neurosci. 2019 PMID:

Peer-Reviewed Full-Length Conference papers (Computer Sciences format)

1. Buchs, G.[S], Maidenbaum, S.[S], **Amedi, A.[PI]** (2014). ***Obstacle Identification and Avoidance Using the 'EyeCane'***. EuroHaptics. pp. 96–103. {7,0}
2. Maidenbaum, S.[S], **Amedi, A.[PI]** (2014). ***Sensory Substitution and Augmentation – what's happening "under the hood" in our brain?*** Assistive Augmentation.
3. Maidenbaum, S.[S], Chebat, DR.[PD], Levy-Tzedek, S.[PD], **Amedi, A.[PI]** (2014). ***Blind in a Virtual World: Vision-deprived Virtual Navigation Patterns Using Depth Cues and The Effect of Extended Sensory Range***. CHI-WiP. {1, }
4. Maidenbaum, S.[S], Chebat, DR.[PD], Levy-Tzedek, S.[PD], **Amedi, A.[PI]** (2014)**.** ***Depth-To-Audio Sensory***

Substitution for Navigation in Virtual Environments. UAHCI International. pp. 398–406. {4,0}

Reviews (Peer-Reviewed):

1. Merabet, L.[PI], Rizzo, J.[C], **Amedi, A.[PD]**, Somers, D.[C], Pascual-Leone, A.[PI] (2005). ***What blindness can tell us about seeing again: Merging neuroplasticity and neuroprostheses***. Nature Review Neuroscience. 6:71-7. 28.88;1/258. (Neurosciences) {159, 103}
2. **Amedi, A.[PI]**, Von Kriegstein, K.[C], Van Atteveldt, N.[C], Beauchamp, MS.[C], Naumer, MJ.[PI] (2005). ***Functional imaging of human crossmodal identification and object recognition***. Experimental Brain Research. 166:559-571. 1.917;193/258. (Neurosciences) {324, 222}
3. Pascual-Leone, A.[PI], **Amedi, A.[PD]**, Fregni, F.[PD], Merabet, L.[PI] (2005). ***The Plastic Human Brain Cortex***. Annual Review of Neuroscience. 28:377-401. 15.630;3/258. (Neurosciences) {1319, 677}
4. **Amedi, A.[PI]**, Merabet, L.[PD], Bermpohl, F.[PD], Pascual-Leone, A.[PI] (2005). ***The Occipital Cortex in the Blind: Lessons about Plasticity and Vision***. Current Directions in Psychological Science. 16:306-311. 5.255;9/128. (Psychology, Multidisciplinary) *{67, 32}*
5. Reich, L.[S], Maidenbaum, S.[S], **Amedi A.**[PI] (2012). ***The brain as a flexible task-machine: implications for visual rehabilitation using non-invasive vs. invasive approaches***. Current Opinion in Neurology. 25:86-95. 4.699;53/258. (Neurosciences) *{58, 38}*
6. Maidenbaum, S.[S], Abboud, S.[S], **Amedi, A.[PI]** (2013). ***Sensory substitution: Closing the gap between basic research and widespread practical visual rehabilitation***. Neuroscience and Biobehavioral Reviews (NBR). 41: 3–15. 8.299;17/258. (Neurosciences) {71, 47}
7. **Amedi, A.[C]**, Ptito, M.[C], Proulx, MJ.[PI] (2014). ***Multisensory integration, sensory substitution and visual rehabilitation.*** Neuroscience and Biobehavioral Reviews (NBR). 41:1–2. 8.299;17/258. (Neurosciences) {27 ,13}
8. Hannagan, T.[C], **Amedi, A.** [C], Cohen, L.[C], Dehaene-Lambertz, G.[C], Dehaene, S.[PI] (2015). ***Origins of the specialization for letters and numbers in ventral occipitotemporal cortex.*** Trends in Cognitive Sciences. 19:374–382. 15.402;4/258. (Neurosciences) {42 ,25}
9. Murray, MM.[PI], Matusz, PJ.[C], **Amedi, A.[PI]** (2015)**.** ***Neuroplasticity: Unexpected Consequences of Early Blindness.*** Current Biology. 25:998-1001. 8.851;19/286. (Biochemistry & Molecular Biology) {4,3}
10. Heimler, B.[PD], Striem-Amit, E.[PD], **Amedi, A. [PI]** (2015)**.** ***Origins of task-specific sensory-independent brain organization in the visual and auditory systems: neuroscience evidence, open questions and clinical implications*****.** Current Opinion in Neurobiology. *35*:169–177. 6.133;27/258. (Neurosciences) {21 ,15}
11. Murray, MM.[PI], Lewkowicz, DJ. [C], **Amedi, A.** [C], Wallace, MT. [PI] (2016) ***Multisensory Processes: A Balancing Act across the Lifespan.*** Trends in Neurosciences. 39(8):567-579. 11.124;11/258. (Neurosciences) {21, 10}
12. **Amedi, A. [PI]**, Maidenbaum, S.[S], Hofstetter S.[PD], Heimler, B.[PD] (2017) Task-selectivity as a comprehensive principle for brain organization. Trends in Cognitive Sciences. 21(5):307-310. 15.402;4/258. (Neurosciences)

Other publications:

1. **Amedi, A.** *"Seeing" in the dark.* In: odyssey Journal 2010; Volume 6. (In Hebrew)

2. **Amedi, A.**, Safran, AB. *EARS TO SEE.* In: Biofutur journal, May 2012
3. **Amedi, A.** *Seeing with sounds.* In: Galileo journal 2013; (In Hebrew)
4. Levy-Tzedek, S.[PD], Halimi, M.[S], **Amedi, A.[PI].** *Seeing with your ears: a wondrous journey across the senses.* In: Frontiers for Young Minds 2013. 1:27

6. Participation in Scientific Conferences, Lectures, and Other Activity:

Participation in Symposiums and invited keynote lectures

International

11/2003: Society for Neuroscience annual meeting, New Orleans, USA. *Blindness leading to cortical hierarchy turned on its head and superior verbal memory /* Conference speaker

06/2004: 5th Annual Meeting of the International Multisensory Research Forum (IMRF), Sitges, Spain; *Multisensory object related processing in the visual cortex of sighted and its reversed hierarchical organization in blind humans. In: "Multisensory integration in human cortical object recognition" symposium*/Symposium speaker

09/2004: 12th World congress of Psychophysiology, Thessaloniki, Greece; *Multisensory object related processing in the visual cortex of sighted and its reversed hierarchical organization in blind humans. In: "seeing with the hands: how the brain integrates visual and tactile information" symposium.*/ Symposium speaker

06/2005: 6th Annual Meeting of the International Multisensory Research Forum (IMRF), Roverto, Italy; *Neural correlates of visual-to-auditory sensory substitution in proficient blind users. In: "Can the blind see?" symposium*/ Symposium speaker

11/2005: Society For Neuroscience conference (SFN), Washington D.C., USA; *Role of the visual cortex in verbal memory and language in the blind. In: "What have we learned about seeing from the blind?" mini-symposium*/ Symposium speaker

03/2006: Seirken / Sokendai International symposium, Okazaki, Japan; *Combining fMRI and TMS to study the functions of the visual cortex in blind and sighted individuals. In: Seirken / Sokendai International symposium (The 34th Seiriken conference): Cross-modal integration and plasticity: Multidisciplinary approaches using noninvasive functional neuroimaging techniques* / Invited speaker

10/2006: The 6th annual Optical Society of America Vision Meeting. Rochester, USA; *Towards closing the gap between visual neuroprostheses and sight restoration: Insights from studying vision, cross-modal plasticity and sensory substitution. In: Multi-sensory Processing and Cross-modal Plasticity symposium*/ Symposium speaker

03/2007: 9th Taller de Neurociencias, Cordoba, Argentina; *See me, hear me, touch me, sensory substitute me: cross-modal interactions in blind and sighted*/ Invited speaker

07/2007: 2nd France-Israel binational conference in neuroscience, neurology and psychiatry, Bordeaux, France. *See me, hear me, touch me: multisensory interactions, brain plasticity and sensory substitution in sighted and blind people*/ Invited speaker.

07/2007: 8th Annual Meeting of the International Multisensory Research Forum (IMRF 2007), Sydney, Australia, *"Extracting shape and location information conveyed by visual-to-auditory sensory substitution activates the lateral occipital complex and dorsal visual stream respectively in blind and sighted individuals"*/ Conference speaker.

07/2007: The International Human Frontiers Science Program Organization annual awardees meeting . Brisbane, Australia "*Can the brain hear shapes?"* /Conference speaker.

04/2008: 2nd annual workshop on Concepts, Actions, and Objects: Functional and Neural Perspectives. Rovereto, Italy. *Can the blind hear shapes? Insights into vision and brain plasticity from studying blindness and sensory substitution*/ Invited keynote speaker

06/2008: "Dynamic Perception, Communication and Action"- An international workshop supported by Israel Science Foundation, Institute of Advanced Studies and the Hebrew University the Interdisciplinary Center for Neural Computation, Jerusalem, Israel; *Using visual cortex for non-visual functions* / Invited Speaker

06/2008: Max Planck Institute of Neurobiology, Munich, Germany. *fMRI study of visual-to-auditory sensory substitution: Can blind heart shapes and locations using artificial vision?*/ Invited speaker

07/2008: 9th Annual Meeting of the International Multisensory Research Forum (IMRF), Hamburg, Germany; *Audio-visual integration for objects, location and low-level dynamic stimuli: novel insights from studying sensory substitution and topographical mapping In: Multisensory integration of audition and vision using multimodal approaches: from neurophysiology and brain imaging to neural network modeling symposium*/ Symposium Organizer, Speaker

08/2008: The European Conference on Visual Perception (ECVP), Utrecht, Netherlands. *"A what/where visual-to-auditory sensory substitution fMRI study: Can blind and sighted hear shapes and locations in the visual cortex?"/* Conference Speaker

09/2008: 10th International Conference on Cognitive Neuroscience (ICON 10) Bodrum, Turkey; *Audio-visual integration: novel insights from studying sensory substitution and topographical mapping. In: Neural Basis of Multisensory Integration symposium/* Symposium speaker

10/2008: 2nd Materials and Sensations, IPREM, Pau, France; *fMRI study of visual-to-auditory sensory substitution: Can blind heart shapes and locations using artificial vision?*/ Invited speaker

11/2008: International workshop: Presence and the Science of Virtual Reality, Haifa, Israel; *Neural basis of perception and mental imagery: insights from sensory substitution and topographical mapping studies*/ Invited speaker

11/2008: The International Minerva-Weizmann Workshop on Active Sensing in Touch, Smell,

and Vision, Weizmann Institute for Science, Rehovot, Israel. *Neural basis of perception and mental imagery: insights from sensory substitution and topographical mapping studies*/ Invited speaker

03/2009: Israel Science Day, London Science Museum, London, England; *Bionic man, dream or reality?*/ Invited speaker

03/2009: Israel Science Day, Manchester Science and Industry museum, Manchester, England; *Bionic man, dream or reality?*/ Invited speaker

05/2009: 23th Sandbjerg Symposium, Danish Society for Neuroscience, Neuroplasticity and Neurorehabilitation, Sandbjerg, Denmark; *Developmental versus adult brain neuroplasticity and neuro-rehabilitation in blindness*/ Invited speaker

05/2009: Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany. *Phase-locking Fourier Approaches to fMRI Applied to study brain plasticity in blind using artificial vision and to study the body scheme*/ Invited speaker

09/2009: Max-Planck Institute for Biological Cybernetics, Tubingen, Germany; *Perception and Brain plasticity: New Insights from Sensory Substitution Research and Phase-locking Fourier Approaches to fMRI*/ Invited speaker

09/2009: Departmental seminar, Max-Planck Institute of Neurobiology, Munich, Germany; *Perception and Brain plasticity: New Insights from Sensory Substitution Research and Phase-locking Fourier Approaches to fMRI*/ Invited speaker

02/2010: International workshop on Brain Circuits – from receptors to network dynamics, Ein Gedi, Israel. *Phase-locking Fourier Approaches to fMRI: implementation to study artificial vision, brain plasticity and multisensory integration*/ Invited speaker

04/2010: Ecole Normale Supérieure, devision of Neurosciences, INSERM (Inserm - Institut national de la santé et de la recherché medicale), Paris, France/ *Can we train the visual cortex to 'see' again after years of blindness? Neural correlates of rapid and long term brain plasticity*/ Invited speaker.

06/2010: Vision Institute, Inserm-UPMC Research Center 968 Paris *Can we train the visual cortex to 'see' again after years of blindness?*/ Invited speaker

06/2010: NeuroSpin Center, CEA-Saclay Center, France. *Can we train the visual cortex to 'see' again after years of blindness? Neural correlates of rapid and long term brain: Sensory processing and brain plasticity in light of the metamodal theory for brain function;*/ Invited speaker

06/2010: Oxford Centre for Functional MRI of the Brain (FMRIB), Oxford, England *Can we train the visual cortex to 'see' again after years of blindness?*/ Invited speaker

06/2010: 11th Annual Meeting of the International Multisensory Research Forum (IMRF), Liverpool, England; A brain full of body maps: cortical mapping of the somatosensory, visual, motor and mental imagery representations of our body scheme using fMRI. *In: Multisensory and Body Experience symposium/* Symposium Organizer, Speaker

07/2010: 7th Forum of European Neuroscience, Amsterdam, Holland; *A brain full of body maps: cortical mapping of the somatosensory, visual, motor and mental imagery representations of our body scheme using fMRI. In :How we come to experience that we own our body: from full-body illusions to cortical mapping*/ Symposium speaker

11/2010: 20th meeting of the Journee Jean-Louis Signoret, Paris, France. *"What does sensory handicap teach us about multisensory integration in the brain", Presidents invites* (together with Prof. Anne-Lise Giraud)/ Symposium Organizer, Speaker

02/2011: The CONNECT (Consortium of neuroimagers for the non-invasive

exploration of brain connectivity and tracts) Meeting on MRI of Brain Connectivity and Microstructure, Tel-Aviv, Israel. *What did sensory deprivation studies teach us about brain organization and reorganization ?/ Invited speaker*

05/2011 International Association of Functional Neurology & Rehabilitation, Orlando, Florida, USA. *The Neural Network of Sensory-A Brain Full of Body Maps: Cortical Mapping of the Somatosensory, Visual, Motor and Mental Imagery Representations of Our Body Scheme using fMRI Substitution Object Shape Recognition /* Invited keynote speaker

06/2011: 17th Annual Meeting of the International Human Brain Mapping Organization (OHBM), Quebec City, Canada; Novel Approaches to Image MultiSensory Body Self-Perception symposium */ Symposium speaker*

07/2011: Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland *The brain as a flexible, sensory-modality-independent Task Machine: from basic research to visual rehabilitation. Can we train the visual cortex to 'see' again after years of blindness?* / Invited speaker

09/2011: Program in Cognitive, Computational and Systems Neuroscience (PICCS) Summer School, Island Monastery of Frauenchiemsee, Germany. PICCS is sponsored by the US National Science Foundation's (NSF) Partnerships for International Research and Education Program (PIRE*)/ Invited symposium speaker/ Invited Faculty.*

09/2011 La Vision Institute annual meeting, Paris, France. *Visual areas are highly flexible task machines: from basic research to visual rehabilitation/ Invited keynote speaker*

10/2011: 12th Annual Meeting of the International Multisensory Research Forum (IMRF), Sendai, Japan; Multi-sensory integration, Sensory substitution technology and Visual rehabilitation symposium, *What did visual deprivation and visual substitution studies teach us about brain organization and reorganization/ Symposium speaker*

10/2011: The 17th Meeting of the European Society for Cognitive Psychology (ESCOP), San Sebastian, Spain. *"The brain as a sensory-motor task machine: insights from the dark"/ Symposium speaker*

11/2011: The Tactile Research Group annual meeting, Seattle, USA/ *Tactile and auditory approaches to sensory substitution*/ Invited keynote speaker

11/2011: US-Canada international physicians' medical conference, Jerusalem, Israel. *'seeing' with*

the ears and hands: from basic research to visual rehabilitation/ Invited keynote speaker

02/2012: Institute du Cerveau et de la Moelle épinière (ICM), Paris, France. *'Seeing' with the ears and hands and bionic eyes: from basic research to visual rehabilitation/* Invited speaker

03/2012: The 5th Annual Brain Circle Meeting, "The Human Brain: Frontiers in Learning and Memory", Lisbon, Portugal. *"Seeing with the ears, hands and bionic eyes: from basic research to visual rehabilitation"/* Invited speaker

03/2012: Brain-Mind Institute, Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland. *'seeing' with the ears and hands and bionic eyes: from basic research to visual rehabilitation/ Invited speaker*

04/2012: NUI symposium, Microsoft R&D, Herzelia Israel. *"NUI for special needs – eyes for the blind"/ Symposium speaker*

12/2012: TEDx Jerusalem, Israel. *'Seeing' with the ears and hands: from basic research to visual rehabilitation/ Invited keynote speaker.*

03/2013: Israel Dealmakers Summit 2013, NYC. *'seeing' with the ears and hands: from basic research to visual rehabilitation / Invited keynote speaker.*

03/2013: Sensory Substitution and Augmentation Conference, The British Academy, London, UK. *"Seeing Colored Images With Music Using the EYEMUSIC: From Perception to Visual Rehabilitation" / Symposium speaker.*

05/2013: British Royal society meeting on blindness, The Royal Society at Chicheley Hall, UK. *'seeing' with the ears and hands and bionic eyes: from basic research to visual rehabilitation/ Invited speaker*

01/2014: Electrical Engineering, EPFL, SWISS. *"'Seeing" and reading with the ears, hands and bionic eyes: from basic research to visual rehabilitation" / Invited keynote speaker.*

01/2014: The 9th "Alpine Bain Imaging Meeting" (ABIM) 2014, Champéry, SWISS. *"A step toward closing the gap between using sensory substitution for understanding brain plasticity and stability and for widespread practical visual rehabilitation" / Invited keynote speaker.*

03/2014: 4th scientific conference – Neurological Restoration 2014, Cuba. *"Towards closing the gap between using sensory substitution for basic research and for visual rehabilitation" / Invited keynote speaker.*

03/2014: Synesthesia Symposium 2014, Hamburg. *"A step toward closing the gap between using sensory substitution for understanding brain plasticity and stability and for widespread practical visual rehabilitation" / Invited keynote speaker.*

04-05/2014 Lectures in NYC, DC, LA, SF, SD, MIAMI, BOCA RATON, USA. *"Towards closing the gap between using sensory substitution for basic research and for visual rehabilitation" / Invited speaker*

06/2014: International Eye Committee invited E-lecture – *" Vision through other senses: practical use of Sensory Substitution devices as assistive technology for visual rehabilitation".*

06/2014: Forschungszentrum Jülich, – *"How encoding color vision and shapes in spectrograms can help us understand brain organization and restore vision in blind".* Germany

10/2014: Internal Seminar 2014 of the Vision Institute of Paris, Amboise, France. *"The neural correlates of hearing colors and shapes: insights from darkness on brain plasticity and stability"/ Invited keynote speaker.*

11/2014 Advanced Retinal Therapy (ART Vienna), Vienna, Austria *"sensory substitution in vision and hearing"*. Invited keynote speaker

03/2015: FENS 11th Göttingen Meeting of the German Neuroscience Society 2015, Germany. *"The neural correlates of hearing colors and shapes: insights from darkness on brain plasticity and stability" / Symposium speaker.*

06/2015: International conference on viryal rehabilitation (ICVR) 2015. Galit Buchs, Shachar Maidenbaum, Shelly Levy-Tzedek, Amir Amedi. *"Virtually Zooming- In with Sensory Substitution for Blind Users",* Spain.

07/2015: 9th International Brain Research Organization (IBRO) World Congress on Neuroscience - Symposium talk – *"The neural correlates of hearing colors: insight from darkness on brain plasticity and stability",* Rio de Janeiro, Brazil

09/2015: The 3rd World Congress of Pediatric Ophthalmology & Strabismus (WSPOS), *"Opening new frontiers in sensory substitution and visual rehabilitation",* Barcelona

10/2015: Federation of European Neuroscience Societies (FENS) Featured Regional Meeting (FFRM) 2015, Symposium talk, *"Passive touch and the visual system: The role of body topographical biases, cross-modal activation / deactivation and large scale network functional connectivity in tool selective areas",* Greece

10/2015: Federation of European Neuroscience Societies (FENS) Featured Regional Meeting (FFRM) 2015, Symposium talk, *"Somatotopic information in the human brain",* Greece

06/2015: Rehab week poster session – 1st prize winner, Title: *"Virtually Zooming - In with Sensory Substitution for Blind Users",* Authors: Galit Buchs, Shachar Maidenbaum, Shelly Levy-Tzedek, Amir Amedi. Valencia, Spain

07/2015: 9th IBRO World Congress, Symposia on *Cortical Plasticity Following Sensory Loss and Restoration,* Rio de Janeiro, Brazil. "*The neural correlates of hearing colors and shapes: insight from darkness on brain plasticity and stability "/ Symposium speaker.*

04/2016: *"Synaesthesia and Cross-modal Perception*", Trinity College, Dublin, Ireland./ invited keynote speaker.

06/2016: 17th International Multisensory Research Forum (IMRF) *"Cross-modal plasticity and integration in sensory restoration by invasive/non-invasive approaches (and their potential combination): from basic science to rehab"*/ Symposium Organizer, Speaker 06/2016: Neural Plasticity Workshop: Insights from Deafness and Language "*Cross-modal plasticity and multisensory integration in the human brain*", ESRC Deafness Cognition and Language Research Centre, Wellcome Collection Conference Centre, London

09/2016: Visual Restoration Annual Conference 2016, Institut de la Vision (IDV), Paris / Conference keynote lecture and co-organizer with Prof. Jose Sahel and Prof. Christine Petit

10/2016: Invited Keynote speaker at the Brain Tech Social: after work conference, Geneve, Switzerland

12/2016: Invited Keynote speaker at the OMOM symposium, The Posthuman between Biology & Technology, Tel-Aviv University

03/2017: Symposium keynote speaker at the Rank Prize Funds Symposia "*Learning to See: From Retinal to Brain Computations*", UK

03/2017: Selected international Brain awareness week lecturer in McMaster, Canada including 7 invited keynote talks including talks at the Psychology, Neuroscience & Behaviour department Grand Rounds, McMaster University; Psychology department at University of Toronto; Joint seminar at the departments of Psychology and Health at York University;

11/2017: Symposia Co-Chair at Neuroscience 2017, the SfN's 47th annual meeting, Washington, USA. Symposium: Cortical Plasticity Following Sensory Loss and Restoration

11/2017: Keynote speaker at the Royal Holloway University of London "*The plastic topographic human brain*", UK

04/2018: Keynote speaker at the NEURONUS 2018 IBRO Neuroscience Forum, Poland

11/2018: nano symposium speaker at the annual SFN conference, "Neural Correlates and Population Receptive Field Mapping for Perception and Mental Imagery of Touch in the Human Brain" USA

02/2019: symposium speaker at the Symposium "Translational NeuroTechnology for Real Life Vision: from Light to Sight", Lausanne, France

03/2019 The 2nd Annual Summit of the Inspired by Einstein Genius100 organization, Los Cabos, Mexico

02/2020: The 3rd Annual Summit of the Inspired by Einstein Genius100 organization, Los Cabos, Mexico

Participation in Symposiums and invited keynote lectures

Local

11/2003: Education and Rehabilitation of the Visually Impaired and Blind conference, Zikron yaakov, Israel; *The 'visual' cortex of the blind*/ Invited speaker

12/2005: Interdisciplinary Center for Neural Computation (ICNC) The Hebrew

12/2005: Advanced Brain Imaging Center, Tel-Aviv Sourasky Medical Center, Israel. *Towards Closing the gap between visual neuroprostheses and sighted restoration: Insights from studying vision, cross-modal plasticity and sensory substitution*/ Invited speaker

01/2008: Department of Ophthalmology, Hadassah University Hospital, Jerusalem, Israel. *Neuomodulation of visual cortex by non- visual functions Insights from studying vision, cross-modal plasticity and sensory substitution*/ Invited speaker

03/2008: 28th Annual Meeting of the Israel Society for Vision and Eye Research (ISVER) 2008) ISVER *C Non-visual factors modulating 'visual' cortex: Multisensory integration and sensory substitution in blind and sighted individuals*/ Conference speaker

03/2008: the Interdisciplinary Center for Neural Computation (ICNC) seminar. *The three topographical senses: perception, interactions and plasticity /* Invited speaker

04/2008: Interdisciplinary Center for Neural Computation (ICNC) annual retreat. *Audio-visual integration for objects, location and low-level dynamic stimuli: novel insights from studying sensory substitution and topographical mapping*/ Conference speaker

04/2009: The brainstorm lecture series, Institute for Medical Research Israel-Canada (IMRIC), Jerusalem, Israel. *Natural and Artificial Senses in the Human Brain: Vision Enhancement and the Mind Body Scheme*/ Invited speaker

05/2009: Weizmann Institute of Science, Neurobiology Department, Rehovot, Israel; *Using Developmental versus adult brain neuroplasticity and neuro-rehabilitation in blindness*; *Perception and Brain plasticity in humans: New Insights from Phase-locking Fourier Approaches to fMRI*/ Invited speaker

06/2009: The Moscona foundation annual report. Jerusalem, Israel. *Artificial vision using sensory substitution in blind: behavior and brain dynamics*/ Invited speaker

05/2009: The cognitive science program scientific day, Jerusalem, Israel. *Part A: artificial vision and sensory substitution. Part B: fMRI Spectral analysis reveals topographical nature of human cortex*/ Invited speaker

03/2010: Madua lecture series – Center for Partnership and Outreach, Jerusalem, Israel; *Seeing with your ears? Modern approaches for rehabilitation of blindness and studying the human brain/* Invited keynote speaker

12/2010: The 19th Annual Meeting of Israel Society for Neuroscience, Eilat, Israel. *The plastic multisensory human brain: insights from crossmodal plasticity and sight restoration efforts in the blind using fMRI and TMS/* Symposium Speaker

01/2011: The 9th Annual Meeting on the history of Neurology, Technion, Israel. *Substituting vision: organization and reorganization in the brain/ Symposium invited Speaker.*

03/2011: Cognitive, Motor and Sensory augmentation symposium, Mishkenot Shaananim, Jerusalem, Israel. *Seeing with the ears and hands: sensory augmentation via substitution. / Symposium invited Speaker.*

05/2011: Brain Plasticity: from science to technology symposium. *The adaptation of the brain to new technologies: the visual system and brain plasticity as an example. /* Symposium invited Speaker

11/2011: Italy-Israel Dialogue on Cognitive and Affective Neuroscience. The Interdisciplinary Center, Herzliya, Israel. *Visual Areas are Highly Flexible Task Machines: From Basic Research to Visual Rehabilitation/ Symposium invited Speaker*.

01/2012: Department of Neurology, Hadassah Medical Center, Jerusalem, Israel. *'Seeing' with the ears, hands and bionic eyes: from basic research to visual rehabilitation*/ Invited speaker

02/2012: Sensory Enhancement symposium, Mishkenot Shaananim, Jerusalem, Israel. Sensory enhancement via sensory substitution: the case of visual rehabilitation (and beyond).

04/2012: The 2012 Israel Medical conference/ *Teaching the Blind to See Through the Use of Sound/* Invited keynote speaker.

06/2012: "The Israeli Presidential conference 2012 Facing Tomorrow"/ *Brain research and the human tomorrow symposium/ Symposium invited Speaker*

03/2013: 33rd Annual Meeting of the Israeli Society for Vision and Eye Research (ISVER), Avenue Conference Center at Airport City. Israel. *"Seeing with the ears, hands and bionic eyes: from basic research to visual rehabilitation"/* Invited keynote speaker.

05/2014: Quebec-Israeli Symposium on Biomedical Imaging, Tel Aviv. "*Vision through other senses: practical use of Sensory Substitution devices as assistive technology for visual rehabilitation*"/ Invited speaker

02/2016: Rehab Science & Technology Update 2016, Tel-Aviv, *"Multisensory Integration, Sensory Substitution and Visual Rehabilitation"/ invited speaker*

03/2016: IMVC 2016 "*New Frontiers in Sensory Substitution and Sensory Recovery*", Tel Aviv

04/2016: Forbes Under 30 Summit, Jerusalem Venture Partners, Jerusalem-Tel Aviv, "*Bridging Innovation with Music*"

07/2016: Keynote Speaker at the The Israeli society of occupational therapy annual conference "*The multi-sensory Brain: basic research, visual rehabilitation and sensory substitutions*", Tel-Aviv, Israel

2017: Keynote speaker at the Scientific Discoveries Lecture Series *18 at the Technion (Israeli MIT)

2/2020: Symposium; Neuro-wellness: Harnessing science for enhancing well-being; The 7th Conference on Cognition Research of the Israeli Society for Cognitive Psychology *" From the lost Penfield homunculus (Little Man in the brain) to Neuro-Wellness and back ",* Akko, Israel

6. b) Invited lectures

International

06/2013: The 14th International Multi-Sensory Research Forum (IMRF), Jerusalem, Israel. / Conference Organizer

06/2013: Sensory Substitution, Brain Plasticity and Visual Rehabilitation workshop, Jerusalem, Israel. "Reading with sounds: Sensory substitution selectively activates the visual word form area in the blind" / Conference Organizer and Speaker.

06/2013: Invited faculty in EU funded Summer school in Cognitive Neuroscience fellowship, Dartmouth College, USA.

12/2015: Techfest, IIT Bombay "*the Asia's largest science and technology festival"/ invited exhibitor*

05/2016: Deaf-blind in the modern world: overcoming the limits of possible "*Using multisensory integration and sensory substation technologies in blind, deaf and deafblind*", Mosco, Russia / Conference Organizer and Speaker

06/2016: *"The Brain in visual and auditory impairment".* College De France, Paris.

07/2016: Invited talk at the Institute of Cognitive Science, University of Osnabrueck, Germany

08/2016: Invited talk at the Inventors' workshop for deafblind technology, Russia

09/2016: European Health Science Match "*New Frontiers in sensory substitution and sensory recovery: Practical musical visual rehabilitation and underlying brain specialization & connectivity*", Heidelberg, Germany

09/2016: ERC Computational Touch Workshop, International Expert workshop "*Perception vs. Mental imagery in The somatosensory and sensory-motor homunculi and their relation to spatial processing and navigation*", Paris

10/2016: Invited Talk at the University of Geneva, EPFL, Geneva Switzerland

11/2016: Invited talk at the Brains: From Synapses, Circuits and Systems to the Clinic, German-Israel Inter-Academy Meeting "*An alternative view of 'visual' cortex organization and its dependence on visual experience and visual input*", Jerusalem Israel

11/2016: The Israeli academy of Sciences and Humanities, annual/biannual collaborative scientific meetings (Germany and Israel), Jerusalem, "From Synapses and Circuits to Brain-Inspired Technologies"/ Invited speaker

05/2017: Invited talk at the "Cognitive improvement :approaches, mechanisms and applications" international conference, Gonda Multidisciplinary Brain Research Center, Bar-Ilan University, Israel

10/2017: Invited talk at the Institute for Brain and Behaviour Amsterdam (IBBA) lecture series, VU Amsterdam

11/2017: Invited Talk at the 4th International Symposium "Low Vision and the Brain" Conference in Berlin, Germany

Invited lectures

Local

06/2010: The 1st Institute for Medical Research Israel-Canada (IMRIC) retreat, Eilat, Israel. *Artificial vision for the blind: technology, behavior and brain dynamics*/ Invited speaker

07/2011: A talk and demonstration of the virtual cane technology to UK ambassador.

05/2011: Dpt. of Life Sciences, Ben-Gurion University, Beer-Sheva, Israel. *What did sensory deprivation and visual-to-auditory sensory substitution studies teach us about brain (re)-organization? / Invited speaker*

05/2011: Dpt. of Biology, University of Haifa, Haifa, Israel. *What did sensory deprivation and visual-to-auditory sensory substitution studies teach us about brain (re)-organization? / Invited speaker*

01/2012: Dpt. of Neurology, Hadassah Medical Center, Jerusalem, Israel. *'Seeing' with the ears, hands and bionic eyes: from basic research to visual rehabilitation*/ Invited speaker

01/2013: A Scandinavian delegation of young leaders, Merkior Hotel, Tel Aviv, Israel. *'Seeing' with the ears, hands and bionic eyes: from basic research to visual rehabilitation*/ Invited speaker

03/2014: The Israeli Science day 2014, Jerusalem. *"What sight restoration in blind, synesthesia and echolocation, teach us about the human brain?"/Invited speaker*

06/2015: The Israeli society of occupational therapy annual conference, "New frontiers in sensory substitutions and visual rehabilitation for blind", Jerusalem

06/2015: 6th International conference on disabilities – Unity & Diversity in action, Tel Aviv, Israel

10/2015: The Israeli Society for Auditory Research (ISAR) annual conference, *"Opening new frontiers in sensory substitution and visual rehabilitation",* Tel Aviv.

12/2015: The 44th annual meeting of the Israeli Polymers & Plastics Society (IPPS), *"How the human brain adapts to new technologies and cultural inventions"* Azriaeli Academic College of Engineering, Jerusalem

12/2015: Invited talk at HUstart - The Hebrew University Entrepreneurship Center

01/2016: Invited talk at the Geneva University Delegation

05/2016: IATI BIOMED 2016 – The 15th National Life Science & Technology Week, Tel Aviv, Israel

11/2016: The Hebrew University Cognitive Science seminar, undergraduate class, Jerusalem Israel

11/2016: The Zvi Meitar Institute for Legal Implications of Emerging Technologies, IDC Herzliya / Invited speaker

2/2020: Symposium; Neuro-wellness: Harnessing science for enhancing well-being, The 7th Conference on Cognition Research of the Israeli Society for Cognitive Psychology, Akko Israel

7. Patents: (1 patent granted; 4 patents pending; all via Yissum)

Amedi, A.[PI], Hanassy, S.[S]**.** "Representing visual images by alternative senses" (Patent granted: January 17, 2017). #30

Amedi, A.[PI], Hanassy, S.[S]. "A device for guiding blind and visually impaired persons" (Patent pending. Provisional stage). #31

Amedi, A.[PI]. "Training device and hybrid device for bionic eye"." (Patent pending. Provisional stage). Review #10

Amedi, A.[PI], Arbel, R.[S]. "Novel Non-visual Reading System" (Patent pending. Provisional stage).

Amedi, A.[PI], Behor, T.[S] "Spatialized Speech Synthesis algorithm" (DOI and provisional).

Amedi, A.[PI]. "Training device and hybrid device for Cochlear implant patients" (DOI stage)